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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,034	07/08/2004	Ulrich Huperz	04-370	3050
34704 7590 04/10/2007 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER CULBRETH, ERIC D	
			ART UNIT 3616	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 04/10/2007	DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/501,034	<b>Applicant(s)</b> HUPERZ, ULRICH	
	<b>Examiner</b> Eric Culbreth	<b>Art Unit</b> 3616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22,23 and 25-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22,23 and 25-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Unapproved replacement sheet</u> .     |

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 1/29/07. These drawings are not approved.
  - a. Figure 3 should be labeled "New Sheet" as it is a new drawing, not a replacement sheet.
  - b. No description of new Figure 3 was added to the Brief Description of the Drawings or the specification (the examiner acknowledges applicant's remarks of his intention to add the references to Figure 3; still, these should be added when the figure is added).
  - c. There is no support in the original drawings for the shape now shown for layer or band 14, and the lead line for 14 was to a different part in the original Figure 2.
  - d. Figure 3 is new matter (there is no support from the original disclosure for the zigzagging pattern now illustrated being the mechanically interlaced limitation claimed). Also, even the showing of "interlacing" in new Figure 3 is not really interlacing (interlacing by dictionary definition is "to intertwine", "to cross one another as if woven together" and "to pass alternately over and under" (The Random House College Dictionary, revised edition © 1980); hence, the drawing still does not show interlacing as claimed).
2. Because the replacement drawings were not approved, the objections raised in the first Office Action remain.

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3. To correct the drawings at this point, it is recommended that the 1/29/07 drawings be resubmitted with Figures 1 and 2 each labeled "Replacement sheet" and with new Figure 3 labeled "New Sheet". Also, in the next correspondence, a Brief Description of Figure 3 should be added in which it is stated that Figure 3 is a "schematic" or "diagrammic" representation of interlacing (meaning only a symbolic representation) and that a description of Figure 3 be added to the detailed description of the invention. And the specification should be amended to recite that the showing of the band or layer 14 in Figure 2 is a "schematic" or "diagrammic" illustration.

#### ***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no support in the specification for claims 33 and 35 ("mechanical" deforming and pressure).

#### ***Claim Objections***

5. Claims 22-23 and 25-32 are objected to because of the following informalities: In claim 22, line 3 "has" should be "having". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 22-23 and 25-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In claims 22 and 33 it is not clear how the seal and deformable material are interlaced, as this is not illustrated or described.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 22-23, 25, 27-33, 37-40 and 43 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 57064427 in view of Japanese Patent 59107730 (both cited by applicant).

Japanese '427 discloses a seal for a pipe (that could be a gas supply system as functionally recited in claims 22 and 33) comprising a supply system or pipe 1 that has an open cross section defined by a wall and a seal defined by a flattened portion 2, 2'. A layer of plastically deformable material 3 is between sides of the flattened portion at 2, 2' and the end is closed (title of invention) or sealed in a gas tight manner. As indefinitely recited and disclosed at the ends of claims 22 and 33, the sides at 2, 2' and the layer 3 are mechanically interlaced with one another inasmuch as applicant's disclosure. As indefinitely disclosed and recited, the wall at 2 is mechanically deformed

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(a press working in a sealing manner is recited in the PURPOSE section). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '427 to include the pipe being made of metal such as steel as taught by Japanese '730 in order to form the pipe of conventional material in the pipe art (claims 22 and 33). Japanese '427's deformable layer 3 can be made of copper metal and fills the cross section of the wall of metal in the combination (claims 23, 25 and 28). As the pipe in the combination is made of steel and the deformable material 3 is made of copper or aluminum or rubber, it would become plastically deformable at a temperature lower than the metal of the gas supply system (claim 27). When Japanese '427's layer 3 is rubber, it is a "natural" plastic and polymer that expands toward the wall of the gas supply system (claims 29 and 39). The rubber would also be a natural adhesive forming an adhesive bond with the wall (claim 30). In Japanese '427, the layer is a film and strip-shaped (especially Figure 3)(claims 31 and 40). The thickness of the deformable material is an obvious matter of design choice, as the specification gives no stated reason or particular purpose for the thickness, and Japanese '427 appears to work just as well with a similar thickness (claim 32). As Japanese '427's film 3 can be copper, it is a solder material that is copper based (claims 37-38). The deforming step in Japanese '427 also deforms the layer 3 (claim 43).

10. Claims 26 and 41-42 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese '427 and Japanese '730 as applied to claims 22 and 33 above, and further in view of Random House College Dictionary, (c) 1980, p.37.

Japanese '427 already teaches a film of copper, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '427 and Japanese '730 above to include an [copper] alloy, which would be a solder material, as alloys of metals are commonly used to reduce cost (dictionary definition).

### ***Allowable Subject Matter***

11. Claims 34-36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

12. Because some claims previously indicated as allowable are now rejected, and the new grounds of rejection cannot be clearly stated to be necessitated by applicant's amendment, this action is nonfinal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Culbreth whose telephone number is 571/272-6668. The examiner can normally be reached on Monday-Thursday, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571/272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Eric Culbreth  
Primary Examiner  
Art Unit 3616

ec





*Not  
approved  
EC  
4/4/07*

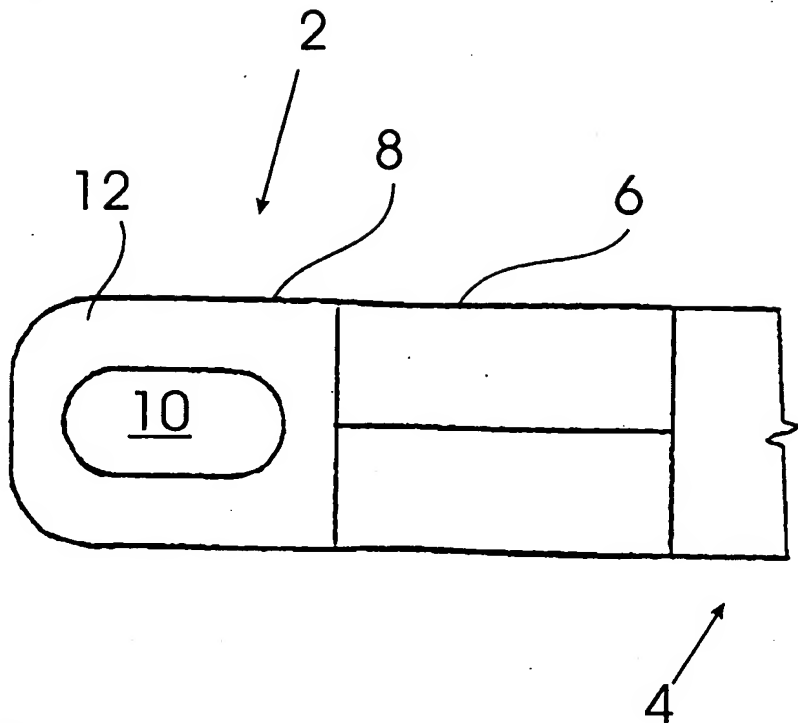


Fig. 1